

Patent Abstracts of Japan

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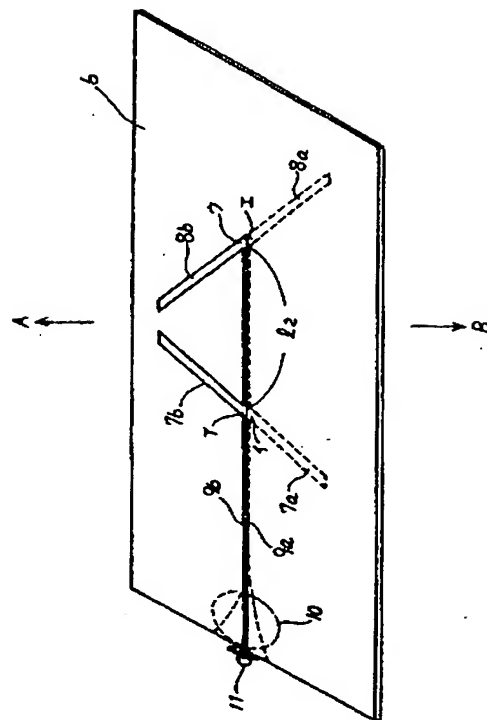
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TITLE : DIE POLE ARRAY ANTENNA



ABSTRACT : PURPOSE: To obtain a die pole array antenna which is easily manufactured and has high precision by printing two die poles on one dielectric substrate at a 90° relative angle.

CONSTITUTION: The die poles 7a and 7b, and 8a and 8b, parallel two-wire lines 9a and 9b, and a tapered balun 10 are printed on the top and reverse surfaces of the dielectric substrate 6 to constitute the united die pole array antenna. A current fed to a coaxial plug 11 is passed through the tapered balun 10 and converted from an unbalanced mode to a balanced mode to be fed to the die poles from feeding points (a)-(d) through the parallel two-wire lines 9a and 9b. The die poles 7a and 7b, and 8a and 8b are printed at a 90° relative angle mutually and their fed currents have a 90° phase difference because of line length  $l_2$ , so the die pole array antenna in a figure radiate a circular polarized wave having a small axis ratio between directions A and B.

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